

ARE YOU REQUIRED TO COMPLETE THE FOLLOWING FORMS?

If a facility does not exceed the following thresholds, complete Hazardous Materials General Information Form <u>only</u> and do not continue:

The Hazardous Materials Inventory Statement (HMIS) and Hazardous Materials Management Plan (HMMP) are required by 2018 International Building Code, Section 414 and Mesa Fire Code, 2018 Chapter 50, and shall be provided when requested by the City of Mesa (COM) or the business exceeds the minimum reportable criteria outlined below for hazardous materials:

- ➤ Corrosives: Gas: 200 cubic feet; Liquid: greater than (>) 55 gal.; Solid: > 1000 lbs.
- **Explosives**: Any amount including operational processes
- ➤ Flammables & Combustible
 - ★ <u>Liquid</u>: Class I, > 5 gal. inside & > 10 gal. outside; Class II & Class IIIA, > 25 gal. inside & 60 gal. outside (aggregate)
 - ❖ Solid: 100 pounds
 - ❖ Gas: 200 cubic feet at normal temperature and pressure (NTP) to include residential liquid oxygen delivery; for Liquid Petroleum Gases (LPG) see IFC 3801 and cryogenic fluids see IFC 3201
- ➤ **Highly toxic materials**: Any amount
- > Oxidizers:
 - Gas: 504 cubic feet (including Oxygen)
 - ❖ Liquid: Class 1, > 55 gal.; Class 2, > 10 gal.; Class 3, > 1 gal.; Class 4, any amount
 - ❖ Solid: Class 1, > 500 lbs.; Class 2, > 100 lbs.; Class 3, > 10 lbs.; Class 4, any amount
- > Organic Peroxide:
 - ❖ Liquid: Class I & II, any; Class III, > 1 gal., Class IV, > 2 gal., Class V, N/A
 - ❖ Solid: Class I & II, any; Class III, > 10 lbs., Class IV, > 20 lbs., Class V, N/A
- **Pyrophoric**: Any amount.
- ➤ **Toxic**: Gas: Any amount; Liquid: > 10 gal.; Solid: > 100 lbs.
- **➤** Unstable Materials:
 - ❖ Liquid: Class 1, > 10 gal.; Class 2, > 5 gal.; Class 3 & 4, any amount
 - ❖ Solid: Class 1, > 100 lbs.; Class 2, > 50 lbs.; Class 3 & 4, any amount
- **➤** Water Reactive:
 - ❖ Liquid: Class 1, > 55 gal.; Class 2, > 5 gal.; Class 3, any amount
 - ❖ Solid: Class 1, > 500 lbs.; Class 2, > 50 lbs.; Class 3, any amount
- ➤ Any hazardous materials used in processes: for example spray painting, dipping, coating, or injected through piping, tubing, etc.

Please direct any questions to the following organizations:

- New business or construction changes: Development Services Department, (480) 644-4273
- Existing business: Mesa Fire Prevention, (480) 644-2622

The City of Mesa Development Services and Fire & Medical Department do not distribute proprietary or trade secret information provided in the following documents.

If ANY <u>control area</u> stores, uses, or handles hazardous materials above these provided thresholds, complete subsequent documents.



Hazardous Materials Construction Permit Checklist

When hazardous materials (Haz-Mat) quantities being stored, used, or handled exceed thresholds previously mentioned, complete the following checklist:

	1.	Hazardous Materials Construction Permit Checklist (this page)
mit	2.	Hazardous Materials General Information Form (Complete & Sign regardless of threshold limits)
Peı	3.	Provide Site Plan indicating locations of all hazardous materials in storage and use.
ion	4.	Hazardous Materials Inventory Statement (HMIS) for each control area
Construction Permit	5.	Hazardous Materials Physical and Health Hazard Aggregate Worksheet (Sum each <u>Hazard Classification</u> from HMIS per control area)
Suc	6.	Safety Data Sheets (SDS), in alphabetical order, for each product listed on the HMIS
CC	7.	Submit to COM Development Services along with construction plans, 55 N. Center St. a. Submit documents electronically
	[In	addition to items 1 - 7, complete following steps when above minimum thresholds]
e plo	8.	Hazardous Materials Management Plan (HMMP). See below for thresholds.
Above Threshold	9.	Complete Arizona Emergency Response (AZSAERC) Tier II Reporting requirements at tier2.azserc.org. <i>Note: Update website annually or within 30 days of any changes</i> .

How to determine if a HMMP short or long form is required

HMMP Short Form

One or more facilities with a minimum storage, use, or handling of Hazardous Materials in an aggregate quantity below the following:

- 1. 500 pounds or less for solid materials
- 2. 55 gallons or less for liquid materials
- 3. 200 cubic feet or less at normal temperatures and pressures for compressed gases
- 4. Does not exceed thresholds listed in 40 C.F.R., Part 355, Sections 302 & 304.

HMMP Long Form

Exceeds above mentioned minimum storage, use, or handling limits. Also, required when applying for either hazardous materials construction or operational permit whenever:

- 1. Facility are designated as Group H, Division 5 semiconductor manufacturer
- 2. Buildings or sites with multiple Group H occupancies
- 3. Hazardous materials storage, dispensing, use, or handling excess of maximum allowable quantities MFC Tables 2703.1.1 (1-4) and Chapter 28 (aerosol products)
- 4. When otherwise determined by unique circumstances.



HAZARDOUS MATERIALS GENERAL INFORMATION FORM

Business Name			Contact Number:		
Address			Reference Number		
Person			Responsible		
Responsible for			Person's Title and		
Business			Contact Number		
Emergency			Emergency		
Contact Names			Contact Numbers		
A 1' 4 NT			Applicant Title and		
Applicant Name			Contact Number		
Principal Facility			Dun & Bradstreet		
Activity			Number (D-U-N-S)		
Total Number of			Shift Designations		
Employees			& Time Changes		
Hours of			Number of		
Operation			Personnel Per Shift		
					• •
☐ Hydraulic Equ		uipment or process ☐ Dust Collectors	es encompassing a	•	Wing items ☐ Fiberglass Operations
☐ Industrial/Med	•	☐ Electroplating	☐ Flow Coat		☐ Dry Cleaning
☐ Picking or Gar		☐ Spray Painting	☐ Dip Tanks		☐ Aboveground Tanks
☐ Magnesium Pr	rocessing	☐ Ovens, Process	☐ Baler or S	hredder	☐ Underground Tanks
☐ Molten Salt Ba	aths	☐ Welding/Cutting	☐ Other		
☐ This facili	tv does n	ot contain ANY	hazardous mate	erial as defin	ed by Mesa Fire Code
	ey does in				ed by webaline code
<u>Declaration</u>					
I certify the in	formation 1	provided including at	ttached documents	are accurate to	the best of my knowledge.
Signature:				Date:	
Dignature.				Dute	
Print Name:				Title:	
	(Mus	st be signed by owner	r/operator or design	nated representa	ntive)
A C			41. 6	1 1 . 1	1, 1, 1, 1, 2, 1
•		-	•	•	dated and resubmitted
within 50 days I	ioi any pro	cess or management	changes to <u>meprev</u>	ention@mesaa	<u>z.guv</u>

These forms as well as Safety Data Sheets shall be available on site in paper or electronically by request of the fire code official. 2018 International Fire Code 407.2.



HAZARDOUS MATERIALS INVENTORY STATEMENT (PER CONTROL AREA)

СОМ	PANY NAME								CONTROL	AREA														
ADDI	RESS								SITE LOCA	TION									UNT	70		_		
	RGENCY FACT #								DATE				BUILDING	#					AMO	CLASS		l Y/N		
BUILI	DING PERMIT #								FIRE DEPT Reference#				SPRINKLE	ERS Y/N				PE	ORAGI	ZARD	Y/N	BINE	DO	<u>'T</u>
			Hazard Classification				STORAGE		USE-CLO	SED SYS	ТЕМ	USE-OPE	N SYSTEM		NFI	PA 704		E TY	STC	C HA	ANS	N CA		
Item#	Product	& Chemical Name	(MFC Abbrev on following page)	Physical State	CAS#	Solid Pounds [cubic feet]	Liquid Gallon [pounds]	Gas cubic ft at NTB	Solid Pounds [cubic feet]	Liquid Gallon [pounds]	Gas cubic ft at NTB	Solid Pounds [cubic feet]	Liquid Gallon [pounds]	Health (Blue)	Flamm (Red)	React (Yellow)	Spec (White)	STORAGE TYPE	OUTDOOR STORAGE AMOUNT	CHEMICAL HAZARD	SAFETY CANS Y/N	STORED IN CABINET	ID (UN)	Haz

Use keyboard tab button to create additional rows

Business Owner/Responsible Party	Signature	Date
Inspector/Reviewer	Title	Date



HAZARDOUS MATERIALS INVENTORY STATEMENT (PER CONTROL AREA)

СОМ	PANY NAME	Acme Chemical	Plant						CONTROL	AREA				Е	3									
ADDI	RESS	1234 Roadrunnei	r Way, M	[esa					SITE LOCA	TION		No	rthwest	Con	ner of	Proper	ty		UNT					
	RGENCY FACT #	(480) 555-4321	3,						DATE	26	Apr 2	2019	BUILDING	G #		55	5		AMO			Y/N		
BUILI	DING PERMIT #	BLD2016-05332							FIRE DEPT Reference #	3	34900	14	SPRINKL	ERS Y	/N	Y		Æ	RAGE	ZARD	Y/N	BINET	DO	<u>T</u>
			Hazard Classification				STORAGE	1	USE-CLO	1	1		N SYSTEM		NF	PA 704		SE TYI	R STO	AL HA	CANS	IN CA		
Item#	Product	& Chemical Name	(MFC Abbrev on following page)	Physical State	CAS#	Solid Pounds [cubic feet]	Liquid Gallon [pounds]	Gas cubic ft at NTB	Solid Pounds [cubic feet]	Liquid Gallon [pounds]	Gas cubic ft at NTB	Solid Pounds [cubic feet]	Liquid Gallon [pounds]	Health (Blue)	Flamm (Red)	React (Yellow)	Spec (White)	STORAGE TYPE	OUTDOOR STORAGE AMOUNT	CHEMICAL HAZARD	SAFETY CANS	STORED IN CABINET	ID (UN)	Haz
1	Trinitrotoluene	(TNΓ)	EXP	Solid	118-96-7	80												R	0	F, R, C	N	Y	0209	1.1D
2	Glyceryl Trinit	rate Solution	OX4, EXP	Solid	55-63-0	1						40		2	3	4		С	10	F, R, C	N	Y	3357	3
3	Hexotonal (Plas	stic Explosive)	EXP	Solid	67713-16-0, Mixture	40												R	0	F, R, C	N	Y	0393	1.1D
4	Di-N-Propyl Pe	roxydicarbonate	OP1	Liquid	16066-38-9		80			-	7		20		,			N	20	F, R, C	Y	N	3112	5.2
5	Acetyl Cyclohe Peroxide	xanesulfonyl	OP1, EXP	Liquid	3179-56-4		15						10					N	5	F, C	Y	Y	3112	5.2, 1
6	Ammonium Per	rchlorate	OX4, EXP	Solid	7790-98-9							10		1	0	4	OX	C	10	F, R, C	N	Y	1442, 0402	5.1, 1.1D
7	Boron Trifluori	de	COR, HTX	Gas	7637-07-2						10			4	0	1	7	R	0	R, C	N	N	1008	2, 8
8	Stibine		UR4, HTX	Gas	7803-52-3						10			4	4	2		R	0	F, R, C	Z	N	2676	2
9	Diborane		PYR, HTX	Gas	19287-45-7									4	4	3	W	L	200	F, R, C	N	N	1911	2
10	Silane		PYR	Gas	7803-62-5									1	4	3		L	200	F, R, C	N	N	2203	2
11	Acrylonitrile, S	tabilized	TOX	Liquid	107-13-1									4	3	2		A	10	F,C	N	N	1093	3, 6
12	Phosphoryl Oxy	ychloride	TOX	Liquid	10025-87-3									4	0	2	W	A	20	С	N	N	1810	6, 8

Use keyboard tab button to create additional rows

Business Owner/Responsible Party	Signature	Date
Inspector/Reviewer	Title	Date



MESA FIRE CODE (MFC) HAZARD CLASSIFICATION

	Table 1 (Material Classifications)	WR1 Water reactive, Class 1
Physica	al Hazards	WR2 Water reactive, Class 2
CL2	Combustible liquid, Class II	WR3 Water reactive, Class 3
C3A	Combustible liquid, Class III-A	,
СЗВ	Combustible liquid, Class III-B	Health Hazards
CMF	Combustible fiber	COR Corrosives
CRF	Cryogenic, flammable	HTX Highly toxics
CFC	Consumer fireworks (Class C Common)	TOX Toxics
CR	Cryogenic, oxidizing	
EXP	Explosives	Note: A material with a primary classification
FG	Flammable gas	within one class can also present a hazard in another
F1A	Flammable liquid, 1-A	class. Be sure to list all applicable hazards for each
F1B	Flammable liquid, 1-B	material.
F1C	Flammable liquid, 1-C	Table 2 (Storage Types)
CFL	Combination flammable liquid	A. Above-ground tank
FLS	Flammable solid	B. Below-ground tank
OPD	Organic peroxide, unclassified detonable	C. Tank inside building
OP1	Organic peroxide, Class 1	D. Steel drum
OP2	Organic peroxide, Class 2	E. Plastic or non-metallic drum
OP3	Organic peroxide, Class 3	F. Can
OP4	Organic peroxide, Class 4	G. Carboy
OP5	Organic peroxide, Class 5	H. Silo
OX1	Oxidizer, Class 1	I. Fiber drum
OX2	Oxidizer, Class 2	J. Bag
OX3	Oxidizer, Class 3	K. Box
OX4	Oxidizer, Class 4	L. Cylinder
OGG	Oxidizing gas, gaseous	M. Glass bottles or jugs
OLG	Oxidizing gas, liquefied	N. Plastic bottles or jugs
PYR	Pyrophoric	O. Tote bin
UR1	Unstable (reactive), Class 1	P. Tank wagon
UR2	Unstable (reactive), Class 2	Q. Rail car
UR3	Unstable (reactive), Class 3	R. Other
UR4	Unstable (reactive), Class 4	

General HMIS Instructions

- **Product or Chemical Name**: Only list primary product and chemical name.
- Hazard Classification: See Table 1 above for applicable codes. If material has a physical and/or health hazard, enter all hazard types. For multiple hazards, enter all hazards. i.e.: chlorine = OLG/COR/TOX
- Physical State: Enter general shape or material aspect, i.e. solid, liquid, gas, granule, etc.
- CAS # (Chemical Abstract Service): Located on MSDS. Example: chlorine=7782-50-5. If material is a mixture, enter "mixture" (do not enter all mixture components).
- Storage Amount: Maximum total quantity stored at one time. Does not include "use" amounts.
- Use-Closed System: Not emitting vapors outside vessel during normal operations, i.e. medical gas piping
- Use-Open System: Solids or liquids in a vessel continuously open to the atmosphere during normal operations, i.e. automotive parts washers.
- NFPA 704©: Provide 0-4 hazard value for each hazard including special hazards. i.e. no water = W
- Storage Type: Enter primarily container(s) storage type. Letter code found in Table 2 above.
- Outdoor Storage Amount: Total material quantity stored outside by pounds, gallons, or gas (cubic feet).
- Chemical Hazard: Indicate all hazards presented by the material, both physical: fire (F), pressure (P), reactivity (R), and then enter the health effect(s), either: acute (A) or chronic (C).
- **DOT I.D**: Enter four-digit Department of Transportation hazard number for material. i.e. chlorine 1017
- **DOT Hazard**: Enter all Department of Transportation hazard class codes. i.e. chlorine = 2.3



PHYSICAL AND HEALTH HAZARD AGGREGATE WORKSHEET

COMPLETE ONE SHEET PER CONTROL AREA (REFERENCE IFC 2018 EDITION, CHAPTER 50 FOR ASSISTANCE)

Business Name:	Business Name:Building Permit #:										
HAZ	ZARDOU	JS MATI	ERIALS	POSING	A PHYS	ICAL H	IAZARD	l			
MATERIAL	CLASS	;	STORAGI	USE-CL	OSED SY	USE-OPE	USE-OPEN SYSTEMS				
		Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)		

HAZARDOUS MATERIALS POSING A HEALTH HAZARD

MATERIAL	;	STORAG	E	USE-CL	OSED SY	STEMS	USE-OPEN SYSTEMS		
	Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)	

HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD IN OUTDOOR AREAS

MATERIAL	CLASS	\$	STORAG	E	USE-CI	OSED SY	STEMS	USE-OPEN SYSTEMS		
		Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)	

HAZARDOUS MATERIALS POSING A HEALTH HAZARD IN OUTDOOR CONTROL AREAS

MATERIAL	;	STORAG	E	USE-CL	OSED SY	STEMS	USE-OPEN SYSTEM		
	Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)	

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NOTE: Materials posing multiple hazard classifications (depending on mixture concentrate) and/or classified as BOTH a health and physical hazard, must be aggregated into each hazard classification and meet requirements for each classifications.



PHYSICAL AND HEALTH HAZARD AGGREGATE WORKSHEET

COMPLETE ONE SHEET PER CONTROL AREA (REFERENCE IFC 2018 EDITION, CHAPTER 50 FOR ASSISTANCE)

Business Name: Acme Chemical Plant Building Permit #: BLD2016-05332

HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD

MATERIAL	CLASS	;	STORAGE			OSED SY	STEMS	USE-OPEN SYSTEMS		
		Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)	
Explosives	1.1	120						50		
Oxidizer	4							50		
Organic Peroxide	1		95			30				
Unstable	4						10			

HAZARDOUS MATERIALS POSING A HEALTH HAZARD

MATERIAL	STORAGE		USE-CLOSED SYSTEMS			USE-OPEN SYSTEMS		
	Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)
Corrosive						10		
Highly Toxic						20		

HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD IN OUTDOOR AREAS

MATERIAL	CLASS	STORAGE			USE-CLOSED SYSTEMS			USE-OPEN SYSTEMS	
		Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)
Explosive	1.1	25							
Oxidizer	4	20							
Organic Peroxide	1	25							
Pyrophoric				400					

HAZARDOUS MATERIALS POSING A HEALTH HAZARD IN OUTDOOR CONTROL AREAS

MATERIAL	STORAGE		USE-CLOSED SYSTEMS			USE-OPEN SYSTEMS		
	Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)	Gas (Cubic ft. at NTP)	Solid (pounds)	Liquid (gal.)
Highly Toxic			200					
Toxic		30						

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NOTE: Materials posing multiple hazard classifications (depending on mixture concentrate) and/or classified as BOTH a health and physical hazard, must be aggregated into each hazard classification and meet requirements for each classifications.



HAZARDOUS MATERIALS MANAGEMENT PLAN (HMMP) FORM CHECKLIST

HMMP SHORT FORM	Section 5.1 - Detailed Site Map
Section 1 - General Information	(2 ^d part of Section 5 - HMMP Long Form only)
☐ Complete Hazardous Materials General Info. Form	Legible, page no larger than 11" by 17"
	Building and structure locations
Section 2 - Fire Department Response Plan	Exterior storage, identified with hazard signs/NFPA 704
Describe facility emergency procedures	
Describe facility efficigency procedures	Chemical loading areas
Section 3 - Hazardous Materials Inventory	Fire protection system(s)
	Fire hydrants
Statement (HMIS) (Chemical Inventory)	Emergency equipment shut-offs
Completed HMIS	Utility and gas shut-offs
Provide MSDS for each identified chemical	Domestic and emergency water shut-offs
Separate HMIS for each control area	☐ Above and below storage tanks including piping
	☐ Parking lots
Section 4 - Aggregate Physical & Health Hazard	Confined space locations
Forms	Compound interior roads (with names)
Fill out Aggregate Physical & Health Hazards tables	Storm and sanitary sewers
	Adjacent property use
Section 5 - Building Floor & Site Plans	
Legible, no larger than 11" by 17"	List special land functions within 1 mile of property
Rooms, doorways, corridors, and exits identified	Permanent access ways
Show each Haz-Mat (plus waste) locations, identify	Evacuation and emergency assembly areas
hazard placards & NFPA 704	Equipment cleaning areas
<u> </u>	Emergency response equipment
Outline all control areas	Fire alarm pull stations
Fire alarm panel	☐ Smoke detectors
Fire sprinkler riser(s)	Evacuation procedures
Fire department connection (FDC)	Operations shutdowns
Main utility shut-off	☐ Indicate scale used, north direction, & drawing date
Lock Box (Knox box) location(s)	
☐ Indicate scale used, north direction, & drawing date	Section 12—Chemical Compatibility and Separation
	Describe Haz-Mat protection procedures to protect from
Section 6 - Employee Training	· · · · · · · · · · · · · · · · · · ·
☐ Employees training records [29 CFR 1910.1200(h)]	ignition sources or other potential
Training program summary including employee	reactants/incompatibles
training on proper handling & emergency response	Section 12 Inspection and Becard Keening
admining on proportional and an original response	Section 13 - Inspection and Record Keeping
Section 7 - Hazardous Materials Handling	Provide schedules and procedures for inspecting:
Summarize the safe handling procedures between	Safety, monitoring, and safety equipment
	Hazardous materials safety housekeeping procedures
storage and manufacturing areas	Inspection sheet(s) developed to include:
Instructions on safe handling and storage	Date, time, and location of inspections
Instructions on emergency procedures:	☐ Problems noted, corrective action taken with designated
☐ How to handle leaks, spills, fires, explosions, etc.	safety manager's name, signature, and date
	Inspector name and contact information
Section 8 - Hazardous Waste Disposal	Separate log of unauthorized hazardous material
☐ Formal arrangement document for cleanup and	discharges to include:
disposing including Haz-Mat waste	Date, time, location, and reason(s) for the discharge
	Type of material and quantity released
Section 9 – Haz-Mat Security & Monitoring	Corrective action taken
☐ Detection types and who monitors system	☐ Whether fire department was contacted for assistance
☐ How is access controlled?	Instruction in maintenance of records
HMMP LONG FORM (INCLUDE SHORT FORM INFO)	Section 14 - Other Haz-Mat Related Permits
Section 10 - Contingency Plan	Provide a list of each hazardous permit required by
Contingency or emergency response plan.	other government agencies.
Contingency equipment list including units on hand,	
capabilities, and storage locations.	Type of permits
Spill and leak control equipment	Agency issuing the permit, including address and phone
Chemical protective clothing	number
	Permit identification number
Portable monitoring/sampling devices	Issued and expiration date of permit
☐ Decontamination/neutralization supplies & equip	

MUST MAINTAIN AN APPROVED HMMP COPY ON THE PREMISES FOR AT LEAST 3 YEARS